



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/024,252	12/21/2001	Pk Haridass Krishnamoorthy	01-ASD-226 (GT)	3333

200 7590 10/03/2003

EATON CORPORATION
EATON CENTER
1111 SUPERIOR AVENUE
CLEVELAND, OH 44114

EXAMINER

RIVELL, JOHN A

ART UNIT	PAPER NUMBER
----------	--------------

3753

DATE MAILED: 10/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/024,252

Applicant(s)

KRISHNAMOORTHY ET AL.

Examiner

John Rivell

Art Unit

3753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/21/01 (app), 4/22/02 (IDS).
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 17-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 and 14-16 is/are rejected.
- 7) ☒ Claim(s) 13 is/are objected to.
- 8) ☒ Claim(s) 1-22 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 December 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-16, drawn to a fuel neck check valve apparatus, classified in class 137, subclass 592.
- II. Claims 17-22, drawn to a method of assembling a check valve in general inside of a fuel filler neck, classified in class 137, subclass 15.7.

The inventions are distinct, each from the other because of the following reasons:

Inventions II and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case product as claimed can be made by another and materially different process such as one in which a check valve is assembled in a generic pipeline absent the insertion of a "tubular nozzle receiver" as recited in the method claims.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, their recognized divergent subject matter and that the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

During a telephone conversation with Mr. Roger A. Johnston on May 20, 2003 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-16. Affirmation of this election must be made by applicant in replying to this

Office action. Claims 17-22 are thus withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 8-10, 12 and 14 are rejected under 35 U.S.C. §102 (b) as being anticipated by Goto et al. (U. S. Pat. No. 5,887,615)

The patent to Goto et al. ('615), in figures 5 and 6 for example, discloses "a one-way valve assembly (1) for a fuel tank filler neck (15, 19) comprising: (a) a tubular shell (16) having a valve seating surface (11) formed about one end thereof and having a reduced exterior diameter portion (accommodating the unnumbered but illustrated "O-ring" seal) on the end opposite said one end and adapted for insertion in the end of an existing filler neck (at neck 19) and having a recess (read at 17) formed therein adjacent said one end; (b) a moveable valve member (2) hingedly disposed for movement with respect to said one end of said tubular shell; (c) a spring (3) disposed to have one end thereof contacting said recess in said shell (16) and having the end opposite said one

end secured to said valve member (via slot 9 in claw 7), wherein said spring is operative to bias and maintain said valve member into contact with said valve seating surface; and, (d) a flexible annular seal (5, 12) disposed to seal between said valve member (2) and said valve seating surface (11)" as claimed in claim 1.

Regarding claim 2, in Goto et al. ('615) "said valve member (2) is mounted on said spring (3) for limited lost motion for self alignment with said valve seating surface" via the tolerance of the fit between slot 9 and spring 3 as claimed.

Regarding claim 3, in Goto et al. ('615) " said annular seal (5, 12) is attached to said valve member (2) for movement therewith" as claimed.

Regarding claim 4 in Goto et al. ('615) "said spring (3) comprises a torsion spring with coil portion thereof received in a slot formed on the tubular member (16)" as claimed. Here the "slot" is read on the portion of shell portion 17 which receives the hanger arms of the valve 2 and hinge pin 18.

Regarding claim 8, in Goto et al. ('615) "said valve member (2 is) attached to said tubular shell (16) for pivotal movement" as claimed

Regarding claim 9, in Goto et al. ('615) "said valve member (2) is moveable from a position contacting said valve seating surface to an open position by insertion of a siphon hose through said reduced diameter end of said tubular shell" as claimed. Here the claim merely requires a capability of the claimed device.

Regarding claim 10, in Goto et al. ('615) "said spring (3) comprises a torsion spring with at least one coil (see the dotted line coil of fig. 6) formed thereon" as claimed.

Regarding claim 12, in Goto et al. ('615) "said spring (3) has one end thereof contacting said valve member (2) in the center thereof" at the slot 9, claw 7 as claimed.

Regarding claim 14, in Goto et al. ('615) "said valve member (2) includes a pair of arms (see fig. 1) extending therefrom with end portions thereof pivotally engaging said tubular shell" 16 as claimed.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Claims 5 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goto et al. ('615) in view of Latham et al. The patent to Goto et al. ('615) discloses all the claimed features with the exception of having the "slot" be sized to permit reciprocal movement of the coil of the spring and valve element prior to pivotal opening movement of the valve element. The patent to Goto et al. ('615) does in fact disclose the concept of reciprocal movement at the elongated hole 20 in the valve element pivot arms. The elongated slot of the valve element in conjunction with the fixed pivot hinge pin 18 permits the valve element to reciprocally move in a downstream direction prior to actual

pivoting movement. Such reciprocal movement lessens damage to the seal element at the point of the seal closest to the hinge pin. Compare figs. 6 and 8.

The patent to Latham et al. discloses that it is known in the art to employ an elongated slot (32, 34 of fig. 2, 232 of fig. 11) within the valve body receiving a pivot hinge pin (60, 260) of a pivotal check valve (58, 258) for the purpose of permitting the pivotal valve element to first move reciprocally relative to the valve seat to move the seal element off of the seat thus lessening damage to the seal at a point closest to the hinge pin.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Goto et al. ('615) a slot in the valve body rather than in the pivot arms for the purpose of permitting the pivotal valve element to first move reciprocally relative to the valve seat to move the seal element off of the seat thus lessening damage to the seal at a point closest to the hinge pin as recognized by Latham et al.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Goto et al. ('615) in view of Bartholomew. The patent to Goto et al. ('615) discloses all the claimed features with the exception of having "interspersed... electrically conductive material for facilitating electrical discharge of static electricity".

The patent to Bartholomew discloses that it is known in the art to employ interspersed electrically conductive material throughout the fuel filler neck 54 and vent hose 58 (see column 4, lines 33-58) for the purpose of preventing the buildup of static electricity which further reduces the chances of premature explosions.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Goto et al. ('615) interspersed electrically conductive material throughout the fuel filler neck of Goto et al. ('615) for the purpose of preventing the buildup of static electricity which further reduces the chances of premature explosions as recognized by Bartholomew.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Goto et al. ('615) in view of Kippe et al. The patent to Goto et al. ('615) discloses all the claimed features with the exception of having an inwardly extending member inside of the tubular shell 16 to guide a siphon hose upon insertion of the siphon hose inside of the shell.

The patent to Kippe et al. discloses that it is known in the art to employ an internally extending rib 80" for the purpose of guiding an inserted siphon hose therein (see column 4, line 58 through column 5, line 2).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Goto et al. ('615) an internally extending rib element for the purpose of guiding an inserted siphon hose therein as recognized by Kippe et al.

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Goto et al. ('615) in view of Devall et al. The patent to Goto et al. ('615) discloses all the claimed features with the exception of having a rib extending from the valve member to deflect a siphon hose upon insertion of the siphon hose.

The patent to Devall et al. discloses that it is known in the art to employ a "rib" including guide surface 212 attached to the filler neck check valve for the purpose of diverting the end of the siphon tube away from the valving parts including the seal on the valve permitting the end of the siphon tube to pass to fuel in the tank.

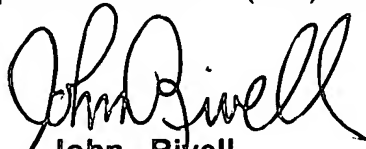
It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Goto et al. ('615) a "rib" including a guide surface attached to the filler neck check valve for the purpose of diverting the end of the siphon tube away from the valving parts including the seal on the valve permitting the end of the siphon tube to pass to fuel in the tank as recognized by Devall et al.

Claim 13 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Rivell whose telephone number is (703) 308-2599. The examiner can normally be reached on Mon.-Thur. from 6:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Bertsch can be reached on (703) 308-0861. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0861.


John Rivell
Primary Examiner
Art Unit 3753

j.r.